

**EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
FOR THE 2004 CALIFORNIA ELECTRICAL CODE (CEC)
THE
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE ADOPTION BY REFERENCE OF THE
2002 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC)
AND CALIFORNIA AMENDMENTS
INTO THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3**

Legend for Express Terms:

- 1. California amendment (CA) brought forward without modification:** *All language will appear in italics.*
 - 2. California amendment (CA) brought forward with modification:** *All language will appear in italics, modified language is shown underlined.*
 - 3. New NEC language with new California amendment (CA):** NEC language shown in normal Arial 12 pt. *California amendments to NEC text is shown underlined and in italics.*
 - 4. New California amendment (CA):** *California language will appear underlined and in italics.*
 - 5. Repealed text:** Shown as ~~Strikeout~~.
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ARTICLE 80 - Administration and Enforcement

The Department is proposing to not adopt Article 80 of the 2002 NEC. The Department is proposing to bring forward from the 2001 CEC an existing California Amendment, Article 89 - Administration, which provides rules for the public and local enforcement agencies in California which is consistent with state law.

ARTICLE 89 - Administration

The Department is proposing the adoption of only those sections within Article 89 indicated below and on the attached matrix table. The numbers of each section and all references to these numbers within each section, have been reformatted to coincide with the change in the numbering format of the 2002 NEC. Article 89 is an existing California amendment, which provides the purpose, scope, administrative authority, and application.

089-1. 89.1 Title. *The provisions contained in this code shall be known as the “California Electrical Code,” a portion of the “California Building Standards Code,” as defined in the “California Building Standards Law” commencing with Section 18901 of the Health and Safety Code, and may be cited and referred to as the “California Electrical Code.” The unqualified words “This Code” as used herein, refer only to the California Electrical Code, and do not include any other portions of the California Building Standards Code. These provisions may also be cited as “C.E.C.” or “Part 3” within other parts of the California Building Standards Code (Title 24).*

089-2 89.2 Purpose. *The purpose of this Code is to provide minimum standards to safeguard life or limb, health, property and public welfare, and to protect against hazards that may arise from the use of electricity by regulating and controlling the design, construction, installation, quality of materials, location and operation of electrical equipment, wiring and systems.*

089-3. 89.3 Scope. *The provisions of this Code and the building standards contained herein, including those standards adopted by reference without amendments, where specifically adopted by the listed agencies under their cited authority and enforced by the enforcing agency specified in Section 089-8-89.7, shall apply to the construction, alteration, moving, demolition, repair and use of all electrical equipment, wiring and systems in or on any building or structure or outdoors on any premise or property; except such electrical equipment, wiring and systems which are expressly exempted by Section 089-4 89.4.*

Exception: [For HCD 1] Additions, Alterations, Repairs and Moved Buildings. *Notwithstanding other provisions of law, alterations, repairs, replacements, and moved buildings are governed by Health and Safety Code, Division 13, Part 1.5, Sections 17912, 17920.3, 17922 (c), 17922.3, 17958.8 and 17958.9, known as the State Housing Law and are implemented by the California Code of Regulations, Title 25, Chapter 1, Subchapter 1. Health and Safety Code Sections 17958.8 and 17958.9 are repeated here for clarity and reads as follows:*

{a} Section 17958.8. *“Local ordinances or regulations governing alterations and repair of existing buildings shall permit the replacement, retention, and extension of original materials and the use of original methods of construction as long as the hotel, lodging house, motel, apartment house, or dwelling, or portions thereof, or building and*

structure accessory thereto, complies with the provisions published in the State California Building Standards Code and the other rules and regulations of the department or alternative local standards adopted pursuant to Section 47920.7 13143.2 and does not become or continue to be a substandard building.”

~~(b)~~ **Section 17958.9.** “Local ordinances or regulations governing the moving of apartment houses and dwellings shall, after July 1, 1978, permit the retention of existing materials and methods of construction so long as the apartment house or dwelling complies with the building standards for foundation applicable to new construction, and does not become or continue to be a substandard building.”

089-4. 89.4 Exempted from This Code. This code does not cover:

~~(a)~~ **(A)** Installations in ships, watercraft other than floating dwelling units, railway rolling stock, aircraft, automotive vehicles, commercial coaches, manufactured homes, mobilehomes, and recreational vehicles.

~~(b)~~ **(B)** Installations underground in mines, mine shafts and tunnels.

~~(c)~~ **(C)** Installations of railways for generation, transformation, transmission, or distribution of power used exclusively for operation of rolling stock or installations used exclusively for signaling and communication purposes.

~~(d)~~ **(D)** Installation of communication equipment under the exclusive control of communication utilities, located outdoors or in building spaces used exclusively for such installations.

~~(e)~~ **(E)** Installations under the exclusive control of electrical utilities for the purpose of communication, or metering; or for the generation, control, transformation, transmission, and distribution of electrical energy located in buildings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utility or on public highways, streets, roads, etc., or outdoors by established rights on private property.

Exception to ~~(d)~~ (D) and ~~(e)~~ (E): In places of employment, the following shall apply: installations of conductors, equipment and associated enclosures subject to the jurisdiction of the California Public Utilities Commission, that are owned, operated and maintained by an electric, communications or electric railway utility, but not including conduit, vaults, and other like enclosures containing conductors and equipment of such a utility when located indoors or on premises not used exclusively for utility purposes, but do not apply to the utility’s conductors and equipment therein.

~~(f)~~ **(F)** Installations on highways or bridges.

~~089-5.~~ 89.5 Non-Building Standards, Orders and Regulations.

~~(a)~~ **(A)** Requirements contained in the National Electrical Code (NEC), or in any other referenced code, document, or standard, which are not building standards as defined in Section ~~18912~~ 18909 of the Health and Safety Code, shall not be construed as a part of the provisions of this Code.

~~(b)~~ **(B)** For the applicability of regulations, safety and other orders, and standards which relate to the administration, enforcement, maintenance, operation and similar non-building standards, see other titles of the California Code of Regulations.

~~089-6.~~ 89.6 Order of Precedence and Use.

~~(a)~~ **(A)** In the event of any difference between the provisions of this Code and the National Electrical Code (NEC), or between this Code and the provisions of any other referenced code, document or standard, the text of this Code shall govern. Where a specific provision varies from a general provision, the specific provisions shall apply.

~~(b)~~ **(B)** If a section of this code makes a cross-reference to another section or table in the National Electrical Code (NEC), such cross-referencing shall be interpreted to mean that which is shown in the NEC unless the referenced section or table has been amended or modified in this Code ~~or~~ for the particular enforcing agency.

~~(c)~~ **(C)** If a section in the National Electrical Code (NEC) makes a cross-reference to another section or table in the NEC, such cross-referencing shall be interpreted to mean that which is shown in the NEC unless the referenced section or table has been amended or modified in this Code for the particular enforcing agency.

~~(d)~~ **(D)** When adopted by a State agency, and approved by the Commission, the text of amended provisions contained in this code shall take precedence over the corresponding provisions of the National Electrical Code (NEC).

~~089.6.1~~ 89.6.1 [For HCD 1] Local Variances. For clarification purposes, ~~the applicable~~ Health & Safety Code Section 17958.5 is repeated here and reads as follows;

Section 17958.5. "Except as provided in Section 17922.6, in adopting the ordinances or regulations pursuant to Section 17958, a city or county may make such changes or modifications in the requirements contained in the provisions published in the California Building Standards Code and the other regulations adopted pursuant to Section 17922 as it determines, pursuant to the provisions of Section 17958.7, are reasonably necessary because of local climatic, geological, or topographical conditions."

"For purposes of this subdivision, a city and county may make reasonably necessary modifications to the requirements, adopted pursuant to Section 17922, contained in the provisions of the code and regulations on the basis of local conditions."

~~089-6.2~~ **89.6.2 [For HCD 1] Findings, Filing and Rejections of Local Variances.** For clarification purposes, ~~the applicable subsection of~~ Health & Safety Code Section 17958.7 is repeated here and reads as follows:

Section 17958.7

(a) “Except as provided in Section 17922.6, the governing body of a city or county, before making any modifications or changes pursuant to Section 17958.5, shall make an express finding that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions. Such a finding shall be available as a public record. A copy of those findings, together with the modification or change expressly marked and identified to which each finding refers, shall be filed with the California Building Standards Commission. No modification or change shall become effective or operative for any purpose until the finding and the modification or change has been filed with the California Building Standards Commission.”

(b) “The California Building Standards Commission may reject a modification or change filed by the governing body of a city or county if no finding was submitted.”

~~089-7.~~ **89.7 Application.**

~~3.~~ **(C) HCD 1— Department of Housing and Community Development.**

3A. (1) HCD 1— Department of Housing and Community Development.

Application - Hotels, motels, lodging houses, apartment houses, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing and factory-built housing, and any other types of dwellings containing sleeping accommodations with common toilet or cooking facilities. Reference ~~089-7.8~~ **89.7.8** of this Code, Office of the State Fire Marshall, SFM for fire and panic safety application.

Enforcing Agency---Local Building Department or the Department of Housing and Community Development.

Authority Cited—Health and Safety Code Sections 17921, 17922 and 19990.

Reference—Health and Safety Code Sections 17000 through 17060, 17910 through 17990, and 19960 through 19997.

~~3B.~~ **(2) HCD 1/AC — Department of Housing and Community Development, Access Compliance.**

Application—Covered Multifamily dwellings units, including but not limited to, lodging houses, dormitories, time-share dwellings, condominiums, shelters for homeless persons, congregate residences, apartment houses, dwellings, employee housing, factory-built housing, and any other types of dwellings containing sleeping

accommodations with common toilet or cooking facilities which are not subject to DSA/AC requirements.

HCD 1/AC — (Department of Housing and Community Development, Access Compliance). Application—Whenever the identification “HCD 1/AC” appears in this Code, it shall mean the following provision by the California Department of Housing and Community Development requires specific accommodations for persons with physical disabilities, as defined in Chapter 11A, of the California Code of Regulations, Title 24, Part 2, also known as the California Building Code. The application of such provisions shall apply only to Group R Occupancies which are newly-constructed covered multifamily dwellings structures (as defined in Chapter 2 11A of the California Building Code), including but not limited to, the following:

1. *Apartment Buildings with 3 or more dwelling units*
2. *Condominiums with 4 or more dwelling units*
3. *Lodging Houses, as defined in Chapter 2 of the California Building Code, when used as a residence with 3 or more guest rooms*
4. *Congregate Residences, as defined in Chapter 2 of the California Building Code*
5. *Dwellings with 3 or more efficiency units, as defined in Chapter 2 of the California Building Code or Section 17958.1 of the California Health and Safety Code*
6. *Shelters for the homeless, not otherwise subject to the disabled access provisions of the Division of the State Architect, Access Compliance (DSA/AC)*
7. *Dormitories, as defined in Chapter 2 of the California Building Code, with 3 or more guest rooms as defined in Chapter 2 of the California Building Code*
8. *Time share dwellings with 3 or more units, except for condominiums covered in item 2 above*
9. *Other Group R Occupancies in covered multifamily dwellings which are regulated by the Office of the State Fire Marshal*

Buildings or portions of buildings of the same or similar occupancies, or mixed occupancies, and buildings accessory thereto, may also be subject to the disabled access provisions adopted by DSA/AC. Buildings subject to the disabled access regulations of the DSA/AC are identified in section ~~089-7.5~~ 89.7.5 of this Code.

These multifamily structure disabled access regulations do not apply to the alteration, repair, rehabilitation, or additions to existing Group R Occupancies that were constructed and occupied prior to July 15, 1992. These regulations also generally do not cover public accommodations such as hotels and motels. (See Section 89.7.5 for public accommodations).

Note: *For specific requirements and exceptions, see Part 2, Chapters 10, and 11A and 30, as amended, California Building Code; Sections ~~210-7 (g) — (g.1), 324.4 Exceptions # 1-6 and 380-8 (c) — (c.1), 404.8(C), and 406.3(G)~~ as amended, of this part, ~~and Part 5, Chapter 15, as amended, California Plumbing Code, Title 24, California Code of Regulations. (This regulation is effective on an emergency basis July 15, 1992).~~*

Enforcing Agency---*Local Building Department or the Department of Housing and Community Development.*

Authority Cited—*Health and Safety Code Sections 17921, 17922, and 19990, and Government Code Section 12955.1.*

Reference—*Health and Safety Code Sections 17000 through 17060, 17910 through 17990, and 19960 through 19997 and Government Code Section 12955.1.*

3.1 (3) General — State Housing Law; City or County Enforcement.

Notwithstanding other provisions of law, Health and Safety Code, ~~Division 13, Parts 1.5,~~ Section 17960 is repeated here for clarity and specificity and reads as follows:

Section 17960. “The building department of every city or county shall enforce within its jurisdiction all the provisions published in the State Building Standards Code, the provisions of this part, and the other rules and regulations promulgated pursuant to the provisions of this part pertaining to the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition, or arrangement of apartment houses, hotels, or dwellings.”

3.2 (4) Right of Entry For Enforcement.

Notwithstanding other provisions of law, Health and Safety Code Sections 17050(i), 17970, 17971, 17972 are repeated here for clarity and read as follows:

~~(a)~~ **Section 17050 (i).** “The enforcement agency may:

- (1). Enter public or private properties to determine whether there exists any employee housing to which this part applies.*
- (2). Enter and inspect all employee housing wheresoever situated, and inspect all accommodations, equipment, or paraphernalia connected therewith.*
- (3). Enter and inspect the land adjacent to the employee housing to determine whether the sanitary and other requirements of this part, the building standards published in the California Building Standards Code relating to employee housing, and the other rules and regulations adopted pursuant to this part have been or are being complied with.”*

~~(b)~~ **Section 17970.** “Any officer, employee, or agent of an enforcement agency may enter and inspect any building or premises whenever necessary to secure compliance with, or prevent a violation of, any provision of this part, the building standards published in the State Building Standards Code, and other rules and regulations promulgated pursuant to the provisions of this part which the enforcement agency has the power to enforce.”

~~(c)~~ **Section 17971.** “The owner, or authorized agent of any owner, of any building or premises may enter the building or premises whenever necessary to carry out any

instructions, or perform any work required to be done pursuant to this part, the building standards published in the State Building Standards Code, and other rules and regulations promulgated pursuant to the provisions of this part.”

- (d) **Section 17972.** “No person authorized by this article to enter buildings shall enter any dwelling between the hours of 6 o'clock p.m. of any day and 8 o'clock a.m. of the succeeding day, without the consent of the owner or of the occupants of the dwelling, nor enter any dwelling in the absence of the occupants without a proper written order executed and issued by a court having jurisdiction to issue the order.”*

3.3 (5) Unsafe Buildings or Structures.

3.3.1 (a) Authority to Enforce.

Notwithstanding other provisions of law, for administration, enforcement, actions, proceedings, abatement, violations and penalties in structures subject to State Housing Law, refer to California Health and Safety Code, Division 13, Part 1.5, Sections 17910 through 17995.5 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.

3.3.2 (b) Employee Housing.

Notwithstanding other provisions of law, for administration, enforcement, actions, proceedings, violations and penalties applicable to structures subject to the Employee Housing Act, refer to Health and Safety Code, Division 13, Part 1, Sections 17000 through 17062.5 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.

3.4 (6) Violations.

3.4.1 (a) Actions and Proceedings.

Notwithstanding other provisions of law, Health and Safety Code, Division 13, Part 1.5, Sections 17980 through 17995.5 address punishments, penalties and fines for violations of building standards in structures subject to State Housing Law and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.

3.4.2 (b) Actions and Proceedings. (For Employee Housing).

Notwithstanding other provisions of law, and Health and Safety Code, Division 13, Part 1, Sections 17055 through 17062.5 address punishments, penalties and fines for violations of building standards in structures subject to the Employee Housing Act and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.

3.5 (7) Methods for Approval of Alternates.

3.5.1 (a) Alternate for Materials, Designs, Tests and Methods of Construction.

Notwithstanding other provisions of law, the method for approval of alternate materials, design, tests and methods of construction are set forth in State Housing Law, Health

and Safety Code, Division 13, Part 1.5, Sections 17923, ~~or 17951(d)~~, or 17958 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.

3.5.2 (b) Alternate for Materials, Designs, Tests and Methods of Construction. (For Employee Housing)

Notwithstanding other provisions of law, the method for approval of alternate materials, appliances, installation, device, arrangement, or method of construction are set forth in the Employee Housing Act, Health and Safety Code, Division 13, Part 1, Section 17002 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.

3.6 (8) Fees and Plan Review.

3.6.1 (a) General.

Notwithstanding other provisions of law, reference State Housing Law, Health and Safety Code, Division 13, Part 1.5, Section 17951 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1 for local enforcement agency's authority to prescribe fees.

3.6.2 (b) Plan Review and Time Limitations.

Notwithstanding other provisions of law, provisions related to plan checking, prohibition of excessive delays and contracting with or employment of private parties to perform plan checking are set forth in State Housing Law, Health and Safety Code, Division 13, Part 1.5, Section 17960.1, and for Employee Housing Act, Health and Safety Code, Division 13, Part 1, Sections 17021 and 17055

3.6.3 (c) Retention of Plans.

Note: Reference ~~Building Standards Law~~, Health and Safety Code, Division 13, Part 3, Sections 19850 and 19851 for provisions related to permanent retention of plans.

Enforcing Agency---Local Building Department or the Department of Housing and Community Development.

Authority Cited---Health and Safety Code Sections 17921 and 50558.

Reference---Health and Safety Code Sections 17000 through 17060, 17910 through 17990, 19960 through 19997, 50558 and 50559.

4. (D) HCD-2—Department of Housing and Community Development

Application--- Permanent buildings and permanent accessory buildings or structures constructed within in mobilehome parks, recreational vehicle parks, temporary recreational parks, travel trailer parks, campgrounds and special occupancy parks which are under the control and ownership of the park operator.

4.1 (1) Right of Entry For Enforcement. [For HCD 2].

Notwithstanding other provisions of law, Health and Safety Code, Division 13, Part 2.1, Section 18400 is repeated below for clarity.

Section 18400

- “(a) The department shall enforce this part and the rules and regulations adopted pursuant to this part, except as provided in Section 18300.*
- (b) The officers or agents of the enforcement agency may do either of the following:*
- (1) Enter public or private property to determine whether there exists any park to which this part applies.*
 - (2) Enter and inspect all parks, wherever situated, and inspect all accommodations, equipment, or paraphernalia used in connection therewith, including the right to examine any registers of occupants maintained therein in order to secure the enforcement of this part and the regulations adopted pursuant to this part.”*

4.2 (2) Actions and Proceedings. [For HCD 2].

Notwithstanding other provisions of law, Health and Safety Code, Division 13, Part 2.1, Sections 18402, 18404, 18423, 18510 and 18700 address punishments, penalties and fines for violations of building standards subject to the Mobilehome Parks Act.

4.3 (3) Alternate for Materials, Designs, Tests and Methods of Construction. [For HCD 2].

Notwithstanding other provisions of law, the method for approval of alternate materials, appliances, installation, device, arrangement, or method of construction are set forth in the Mobilehome Parks Act, Health and Safety Code, Division 13, Part 2.1, Section 18305.

Enforcing Agency—Local building department or the Department of Housing and Community Development.

Authority Cited—Health and Safety Code Section 18300, 18610 and 18670

Reference Cited—Health and Safety Code Section 18200 through 18851

~~089-8.~~ 89.8 Adopting Agency. An “Adopting agency” is a State agency, excluding an agency in the judicial or legislative department of the State Government, which is responsible for the administration of a program and which as promulgated, adopted and submitted to the Commission for its approval proposed building standards for such programs. “Adopting agency” may include boards, commissions, committees, departments, divisions, officers, and other subdivisions of State Government.

89-9. 89.9. Format. The California Electrical Code, a part of the California Building Standards Code, adopts the National Electrical Code (NEC) by reference on an article by article basis. Amendments or additions to the provisions of the NEC by each adopting agency are adopted on a section by section or subsection by subsection basis, and follow the NEC format using the same titles, bold face headings and general text arrangement, except where the commission has approved a format variance.

~~89-10.~~ **89.10. Validity.** *If any chapter, article, section, subsection, paragraph, sentence, clause, or phrase of this Code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the State as stipulated by statutes, or otherwise inoperative, such decisions shall not affect the validity of the remaining portions of this Code.*

~~89-11.~~ **89.11. Standard Reference Documents.**

~~(a)~~ **(A)** *The codes, publications, and standards adopted in the Matrix Adoption or referred to in this Code, including other codes, publications, and standards referred to therein, are by title and date of publication, hereby adopted as standard reference documents of this code.*

~~(b)~~ **(B)** *Such reference to other documents shall be made in the form of either an internal citation within the text or a fine print note (utilizing a smaller typographical alphabet letter size), and shall be a specific edition of the referenced document. Internal citations appearing within the text of a building standard are enforceable, and each citation must be checked for accuracy and application. Fine print notes which appear beneath the applicable text of the building standard or code section are explanatory or permissive and are not enforceable.*

ARTICLE 90 – Introduction

The Department is proposing the adoption of Article 90 without amendment.

CHAPTER 1: General, Articles 100-110

The Department is proposing the adoption of Articles 100 and 110 of Chapter 1 without amendments.

CHAPTER 2: Wiring and Protection, Articles 200-285

The Department is proposing the adoption of Articles 200, 210, 215, 220, 225, 230, 240, 250, 280, and 285 of Chapter 2 without amendments.

ARTICLE 210 Branch Circuits

Note: In the 2002 Edition of the NEC, Section 210-7 was revised and relocated to Section 406.3. California Amendment Section 210-7(g) has been renumbered and relocated with modifications to Section 406.3(G)(1).

~~210-7(g) — [HCD 1/AC w/exceptions] – Installation Heights.~~

~~Where access for people with physical disabilities is required by Article 089-7, the center of receptacle outlets on branch circuits of 30 amperes or less shall be installed not more than 48 inches nor less than 15 inches (381 mm) above the floor or working platform.~~

~~Exception No. 1: Receptacle outlets installed as part of permanently installed baseboard heaters are exempt.~~

~~Exception No. 2: Required receptacle outlets shall be permitted in floors when adjacent to sliding panels or walls.~~

~~Exception No. 3: Baseboard electrical outlets used in relocatable partitions, window walls or other electrical convenience floor outlets are not subject to the minimum height requirements.~~

~~Exception No. 4: This section shall not apply to existing buildings when the enforcing agency determines that compliance with these standards would create an unreasonable hardship.~~

Note: In the 2002 Edition of the NEC, Section 210-7 was revised and relocated to Section 406.3. California Amendment Section 210-7(g.1) has been renumbered and relocated with modifications to Section 406.3(G)(2).

~~210-7(g.1) — [HCD 1/AC]~~

~~When access for persons with physical disabilities is required in covered multifamily dwelling units, the center of receptacle outlets on branch circuit of 30 amperes or less shall be located no higher than 48 inches, and no lower than 15 inches, above the floor. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches in depth, the maximum height is reduced to 44 inches for forward approach, or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Obstructions shall not extend more than 25 inches from the wall beneath the receptacle.~~

~~Outlets that do not satisfy these specifications are acceptable provided that comparable outlets, that perform the same functions, are provided within the same area and are accessible.~~

CHAPTER 3: Wiring Methods and Materials, Articles 300-398

The Department is proposing the adoption of Articles 300, 310, 312, 314, 320, 322, 324, 328, 330, 332, 336, 338, 340, 342, 344, 348, 350, 352, 354, 356, 358, 360, 362, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 396, and 398 of Chapter 3 without amendments.

The Department is proposing the adoption of Articles 334 and 395, of Chapter 3 with amendments.

The Department is proposing to continue the non-adoption of Integrated Gas Spacer Cable, Article 326 of the 2002 NEC.

Note: In the 2002 Edition of the NEC, Article 324 has been revised and relocated to Article 394. California Amendment Section 324-4 has been relocated with modifications to Section 394.12.

~~324-4. [HCD 1] - Uses not Permitted.~~

~~Concealed [HCD 1] knob-and-tube wiring shall not be used in commercial garages, theaters and similar locations, motion picture studios, hazardous (classified) locations or in the hollow spaces of walls, ceilings and attics when such spaces are insulated by loose, rolled, or foamed-in-place insulating material that envelopes the conductors.~~

~~EXCEPTION: This article is not intended to prohibit the installation of insulation where knob-and-tube wiring is present, provided the following are complied with:~~

- ~~(1) The wiring shall be surveyed by an electrical contractor licensed by the State of California. Certification shall be provided by the electrical contractor that the existing wiring is in good condition with no evidence of deterioration or improper over-current protection, and has no improper connections or splices. Repairs, alterations or extensions to the electrical system will require permits and inspections by the authority having jurisdiction for the enforcement of this code.~~
- ~~(2) The certification form shall be filed with the authority having jurisdiction for the enforcement of this code and a copy furnished to the property owner.~~
- ~~(3) All accessible areas in the building where insulation has been installed around knob-and-tube wiring shall be posted by the insulation contractor with a notice, clearly visible, stating that caution is required when entering these areas. The notice shall be printed in both English and Spanish.~~
- ~~(4) The insulation shall be noncombustible as defined by Section 215.2N of Part 2 of this Title.~~
- ~~(5) The insulation shall not have any electrical conductive material as part of or supporting the insulation material.~~
- ~~(6) Nothing in this exception will prohibit the authority having jurisdiction for the enforcement of this code from requiring permits and inspections for the installation of thermal insulation.~~

ARTICLE 334. Nonmetallic-Sheathed Cable: Types NM, NMC, and NMS

334.10 Uses Permitted. Type NM, Type NMC, and Type NMS cables shall be permitted to be used in the following:

- (1) One- and two-family dwellings.
- (2) Multifamily dwellings permitted to be of Types III, IV, and V construction except as prohibited in 334.12.
- (3) Other structures permitted to be of Types III, IV, and V construction except as prohibited in 334.12. Cables shall be concealed within walls, floors, or ceilings that provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies.

Note: [HCD 1 and HCD 2] Types III, IV, and V construction as referenced in Section 334.10 items (2) and (3) shall be as defined in Title 24, Part 2, California Building Code.

FPN No. 1: Building constructions are defined in NFPA 220-1999, Standard on Types of Building Construction, or the applicable building code, or both.

FPN No. 2: See Annex E for determination of building types [NFPA 220, Table 3-1].

- (4) Cable trays, where the cables are identified for the use.

FPN: See 310.10 for temperature limitation of conductors.

(A) Type NM. Type NM cable shall be permitted as follows:

- (1) For both exposed and concealed work in normally dry locations except as prohibited in 334.10(3).
- (2) To be installed or fished in air voids in masonry block or tile walls.

(B) Type NMC. Type NMC cable shall be permitted as follows:

- (1) For both exposed and concealed work in dry, moist, damp, or corrosive locations, except as prohibited in 334.10(3).
- (2) In outside and inside walls of masonry block or tile.
- (3) In a shallow chase in masonry, concrete, or adobe protected against nails or screws by a steel plate at least 1.59 mm (1.16 in.) thick and covered with plaster, adobe, or similar finish.

(C) Type NMS. Type NMS cable shall be permitted as follows:

- (1) For both exposed and concealed work in normally dry locations except as prohibited in 334.10(3).
- (2) To be installed or fished in air voids in masonry block or tile walls.
- (3) To be used as permitted in Article 780.

Note: In the 2002 Edition of the NEC, Article 380 was revised and relocated to Article 404. California Amendment Section 380-8(c) has been renumbered and relocated with modifications to Section 404.8(c)(1).

~~380-8 (c) — [HCD 1/AC] - Installation~~

~~Where access for people with disabilities is required by Article 089-7, the center of the grip of the operating handle of controls or switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances or cooling, heating and ventilating equipment, shall be not more than 48 inches (1219 mm) above the floor or working platform.~~

Note: Section 380-8(c.1) has been renumbered and relocated with modifications to Section 404.8(C)(2).

~~380-8(c.1) — [HCD 1/AC]~~

~~When access for people with physical disabilities is required in covered multifamily dwelling units, light switches, thermostats and other environmental controls shall be located no higher than 48 inches (1219 mm), and no lower than 15 inches (381 mm), above the floor. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Obstructions shall not extend more than 25 inches (635 mm) from the wall beneath a control. Controls that do not satisfy these specifications are acceptable provided that comparable controls or outlets, that perform the same functions, are provided within the same area and are accessible.~~

ARTICLE 394 Concealed Knob-and-Tube Wiring

394.12 Uses Not Permitted. Concealed knob-and-tube wiring shall not be used in the following:

- (1) Commercial garages
- (2) Theaters and similar locations
- (3) Motion picture studios
- (4) Hazardous (classified) locations

- (5) Hollow spaces of walls, ceilings, and attics where such spaces are insulated by loose, rolled, or foamed-in-place insulating material that envelops the conductors

EXCEPTION: [For HCD 1] This article is not intended to prohibit the installation of insulation where knob-and-tube wiring is present, provided the following are complied with:

- (1) *The wiring shall be surveyed by an electrical contractor licensed by the State of California. Certification shall be provided by the electrical contractor that the existing wiring is in good condition with no evidence of deterioration or improper over-current protection, and no improper connections or splices. Repairs, alterations, or extensions to the electrical system will require permits and inspections by the authority having jurisdiction for the enforcement of this Code.*
- (2) *The certification form shall be filed with the authority having jurisdiction for the enforcement of this Code, and a copy furnished to the property owner.*
- (3) *All accessible areas in the building where insulation has been installed around knob-and-tube wiring shall be posted by the insulation contractor with a notice, clearly visible, stating that caution is required when entering these areas. The notice shall be printed in both English and Spanish.*
- (4) *The insulation shall be noncombustible as defined ~~by Section 215.2N of Part 2 of this Title~~ in Title 24, Part 2, California Building Code.*
- (5) *The insulation shall not have any electrical conductive material as part of or supporting the insulation material.*
- (6) *Nothing in this exception will prohibit the authority having jurisdiction for the enforcement of this code from requiring permits and inspections for the installations of thermal insulation.*

CHAPTER 4: Equipment for General Use, Articles 400-490.

The Department is proposing the adoption of Articles 400, 402, 408, 410, 411, 422, 424, 426, 427, 430, 440, 445, 450, 455, 460, 470, 480, and 490 of Chapter 4 without amendments.

The Department is proposing the adoption of Articles 404 and 406, of Chapter 4 with amendments.

ARTICLE 404 Switches

~~380-8(c) and 380-8(c.1)~~ 404.8(C) [HCD 1/AC] – Installation Height

(C) [For HCD 1/AC] Installation Height.

(1) [For HCD 1/AC] Where access for people with physical disabilities is required by Article 89-7 89.7, the center of the grip of the operating handle of controls or switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances or cooling, heating and ventilating equipment, shall be not more than 48 inches (1219 mm) above the finished floor or working platform.

(2) [For HCD 1/AC] When access for people with physical disabilities is required in covered multifamily dwellings, ~~units,~~ light switches, thermostats and other environmental controls shall be located no higher than 48 inches (1219 mm), and no lower than 15 inches (381 mm), above the finished floor measured to the center of the grip. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Obstructions shall not extend more than 25 inches (635 mm) from the wall beneath a control. Controls that do not satisfy these specifications are acceptable provided that comparable controls or outlets, that perform the same functions, are provided within the same area and are accessible.

ARTICLE 406 Receptacles, Chord Connectors, and Attachment Plugs (Caps)

406.3 General Installation Requirements. Receptacle outlets shall be located in branch circuits in accordance with Part III of Article 210. General installation requirements shall be in accordance with 406.3(A) through (F). [For HCD 1/AC] General installation requirements shall be in accordance with 406.3(A) through (G).

~~210-7(g) and 210-7(g-1)~~ 406.3(G) [HCD 1/AC] – Installation Heights.

406.3(G) [HCD 1/AC] – Installation Heights.

(1) [HCD 1/AC w/exceptions 1, 2, 3, and 4] Where access for people with physical disabilities is required by Article 89-7 89.7, ~~the center of~~ receptacle outlets on branch circuits of 30 amperes or less shall be installed in an outlet box located not more than 48 inches (1219 mm) measured from the top of the receptacle outlet box nor less than 15 inches (381 mm) measured from the bottom of the receptacle outlet box above the finished floor or working platform.

Exception No. 1: Receptacle outlets installed as part of permanently installed baseboard heaters are exempt.

Exception No. 2: Required receptacle outlets shall be permitted in floors when adjacent to sliding panels or walls.

Exception No. 3: Baseboard electrical outlets used in relocatable partitions,

window walls or other electrical convenience floor outlets are not subject to the minimum height requirements.

Exception No. 4: This section shall not apply to existing buildings when the enforcing enforcement agency determines that compliance with these standards would create an unreasonable hardship.

***(2) [For HCD 1/AC]** When access for persons with physical disabilities is required in covered multifamily dwellings, ~~units, the center of~~ receptacle outlets on branch circuits of 30 amperes or less shall be located in an outlet box located no more than 48 inches (1219 mm) measured from the top of the receptacle outlet box nor less than 15 inches (381 mm) measured from the bottom of the receptacle outlet box above the finished floor or working platform. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches in depth, the maximum height measured at the top of the box is reduced to 44 inches for forward approach, or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Obstructions shall not extend more than 25 inches from the wall beneath the receptacle.*

Outlets that do not satisfy these specifications are acceptable provided that comparable outlets, that perform the same functions, are provided within the same area and are accessible.

CHAPTER 5: Special Occupancies, Articles 500-555.

The Department is proposing the adoption of Articles 518, 527, and 545, of Chapter 5 without amendments.

The Department is proposing to not adopt Articles 500, 501, 502, 503, 504, 505, 510, 511, 513, 514, 515, 516, 517, 520, 525, 530, 540, 547, 550, 551, 552, 553, and 555 of the 2002 NEC.

CHAPTER 6: Special Equipment, Articles 600-695.

The Department is proposing the adoption of Articles 600, 620, 680, 690, and 692 of Chapter 6 without amendments.

The Department is proposing to not adopt Articles 604, 605, 610, 630, 640, 645, 647, 650, 660, 665, 668, 669, 670, 675, 685, and 695 of the 2002 NEC.

The Department is proposing the adoption of Article 625 as amended by the State Fire Marshal.

CHAPTER 7: Special Conditions, Articles 700-780.

The Department is proposing the adoption of Articles 700, 702, 705, 720, 725, 727, and 770 of Chapter 7 without amendments.

The Department is proposing to not adopt Articles 701, 760, and 780.

CHAPTER 8: Communications Systems, Articles 800-830.

The Department is proposing to not adopt Chapter 8.

CHAPTER 9: Tables

The Department is proposing the adoption of the Tables 1, 4, 5, 5A, 8, and 9, 11(A), 11(B), 12(A), and 11(B) in Chapter 9 without amendments.

ANNEXES

The Department is proposing to not adopt Annexes A, B, C, D, E, and F.